PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY (Chapter I of the Patent Cooperation Treaty)

(PCT Rule 44bis)

Applicant's or agent's file reference G104004-F387	FOR FURTHER ACTION	See item 4 below			
International application No. PCT/JP2004/003934	International filing date (day/month/year) 23 March 2004 (23.03.2004)	Priority date (day/month/year) 25 March 2003 (25.03.2003)			
International Patent Classification (8th edition unless older edition indicated) See relevant information in Form PCT/ISA/237					
Applicant TOPPAN PRINTING CO., LTD.					

1.	This international preliminary report on patentability (Chapter I) is issued by the International Bureau on behalf of the International Searching Authority under Rule 44 bis.1(a).				
2.	This REPORT consists of a total	of 4 sheets, including this	s cover sheet.		
	In the attached sheets, any refere to the international preliminary r		of the International Searching Authority should be read as a reference apter I) instead.		
3.	This report contains indications	relating to the following it	ems:		
	Box No. I	Basis of the report	•		
	Box No. II	Priority			
	Box No. III	Non-establishment of capplicability	opinion with regard to novelty, inventive step and industrial		
	Box No. IV	Lack of unity of invent	ion		
	Box No. V		der Article 35(2) with regard to novelty, inventive step or industrial and explanations supporting such statement		
	Box No. VI	Certain documents cite	d		
	Box No. VII	Certain defects in the in	nternational application		
	Box No. VIII	Certain observations or	the international application		
4.	4. The International Bureau will communicate this report to designated Offices in accordance with Rules 44bis.3(c) and 93bis.1 but not, except where the applicant makes an express request under Article 23(2), before the expiration of 30 months from the priority date (Rule 44bis.2).				
	•				
			Date of issuance of this report 22 February 2006 (22.02.2006)		
	The International Bures		Authorized officer		
	34, chemin des Colombettes 1211 Geneva 20, Switzerland Yoshiko Kuwahara				
Facsin	nile No. +41 22 740 14 35		lephone No. +41 22 338 90 90		

Form PCT/IB/373 (January 2004)

PATENT COOPERATION TREATY

From the INTERNATIONAL SEARCHING AUTHORITY			ITY	All Carlot		
То:					PCT PCT	
				·		RITTEN OPINION OF THE IONAL SEARCHING AUTHORITY
						(PCT Rule 43 <i>bis</i> .1)
0					Date of mailing (day/month/year)	
		gent's file referend 1-F387	ce		FOR FURTHER A	ACTION See paragraph 2 below
		olication No.		International filing date	/day/month/year)	Priority date (day/month/year)
		2004/003		23.03.2004		25.03.2003
Internati	onal Pat	ent Classification	i (IPC) or both	national classification an	d IPC	
Applicat TOP		PRINTING	G CO.,	LTD.		
1.	This of	pinion contains in Box No. I		ing to the following items		
	Box No. I Basis of the opinion Box No. II Priority					
•		Box No. III	•	hment of opinion with res	eard to novelty, inventi	ve step and industrial applicability
	Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability Box No. IV Lack of unity of invention					
	\boxtimes	Box No. V		ntement under Rule 43bis.; citations and explanation		ovelty, inventive step or industrial
		Box No. VI	Certain docu			
		Box No. VII	Certain defe	cts in the international app	olication	
		Box No. VIII	Certain obse	rvations on the internation	nal application	
2.	FURT	HER ACTION				•
•	Interna than th	tional Preliminar is one to be the I	y Examining A PEA and the	Authority ("IPEA") except	that this does not app the International Bure	be considered to be a written opinion of the ly where the applicant chooses an Authority other au under Rule 66.1 <i>bis</i> (b) that written opinions of
	written	reply together,	where appropr		before the expiration	, the applicant is invited to submit to the IPEA a of 3 months from the date of mailing of Form expires later.
	For further options, see Form PCT/ISA/220.					
3.	For fur	ther details, see n	otes to Form P	PCT/ISA/220.		
Name and mailing address of the ISA/JP				Authorized officer		
Facsimile	No.			. <u>.</u>	Telephone No.	

Form PCT/ISA/237 (cover sheet) (January 2004)

1,

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/JP2004/003934

Box	No. I	Basis of this opinion				
1.		regard to the language, this opinio, unless otherwise indicated under t		asis of the international appl	ication in the language in which it was	
		This opinion has been established			he following language ourposes of international search (under	
	_	Rule 12.3 and 23.1(b)).	_			
2.		regard to any nucleotide and/ontion, this opinion has been establis		ed in the international appl	ication and necessary to the claimed	
	a.	type of material				
		a sequence listing			•	
		table(s) related to the sequer	nce listing			
	b.	format of material				
		in written format				
		in computer readable form				
	c.	time of filing/furnishing			•	
		contained in the internationa	I application as filed.		•	
		filed together with the intern	ational application in computer i	readable form.		
		furnished subsequently to th	is Authority for the purposes of s	search.		
•						
3.	لـا	In addition, in the case that more furnished, the required statements filed or does not go beyond the ap	that the information in the subse	equent or additional copies is	c(s) relating thereto has been filed or s identical to that in the application as	:
4.	Addit	tional comments:				
			•		,	
					•	
		•			•	
		,				
			•	•		
		<u> </u>				- 1

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/JP2004/003934

Box		t under Rule 43bis.1(a)(i) with regard to nove nations supporting such statement	elty, inventive step or industrial applicability;
1.	Statement		
	Novelty (N)	Claims 2, 4, 6-12, 14,	16, 18-21 YE
		Claims 1, 3, 5, 13, 15	, 17 NO
	Inventive step (IS)	Claims 4, 10, 16	YE
		Claims 1-3, 5-9, 11-15,	, 17-21 NO
	Industrial applicability (IA)	Claims 1-21	YE
		Claims	NO

2. Citations and explanations:

Document 1: JP, 5-80028, A (Shipley Co., Inc.)
March 30, 1993 (03.30.93), Claims, Paragraphs 0005, 0015, 0016 and 0027-0031
Document 2: WO, 01/029548, A1 (Advanced Technology Materials, Inc.)
April 26, 2001 (04.26.01), Page 2, line 11 to page 3, line 9, and page 21, lines 12-17, Fig. 1
Document 3: JP, 2001-152398, A (Fujitsu Limited), June 5, 2001 (06.05.01), Full text

The inventions of claims 1-3, 5, 13-15 and 17 are described in document 1 cited in the ISR; therefore, they do not appear to be novel or involve an inventive step.

The inventions of claims 6-9, 11, 12 and 18-21 do not appear to involve an inventive step based on document 1 cited in the ISR. For example, using electrolytic copper plating on a semiconductor product as described in cited document 2, and controlling the condition of a liquid based on an analytical value are commonly known points; also, the rotation speed of a working electrode is merely a matter of design variation that is determined accordingly so as to appropriately stir a bath.

The inventions of claims 4, 10 and 16 are not described in any of the documents cited in the ISR; nor are they obvious to a party skilled in the art. None of the documents cited in the ISR describes the idea of approximating the curve for time-dependent change in potential by the Boltzman function and deriving the potential change speed.

PATENT COOPERATION TREATY

From the INTERNATIONAL SEARCHING AUTHOR	ITY		30	
Го:			PCT PCT	
			RITTEN OPINION OF THE IONAL SEARCHING AUTHORITY	
			(PCT Rule 43bis.1)	
		Date of mailing (day/month/year)		
Applicant's or agent's file reference G104004-F387	, , , , , , , , , , , , , , , , , , , ,	FOR FURTHER A	ACTION See paragraph 2 below	
International application No.	International filing date ((day/month/year) Priority date (day/month/year)		
PCT/JP2004/003934	23.03.2004	0	25.03.2003	
International Patent Classification (IPC) or both	national classification and	d IPC		
Applicant				
TOPPAN PRINTING CO.,	LTD.			
This opinion contains indications relat	ting to the following items:			
Box No. 1 Basis of the		•		
Box No. II Priority	opinion		•	
Box No. III Non-establis	hment of opinion with reg	ard to novelty, inventi	ve step and industrial applicability	
	y of invention		-	
	atement under Rule 43 <i>bis.</i> I r; citations and explanation		ovelty, inventive step or industrial ement	
Box No. VI Certain docu	iments cited			
Box No. VII Certain defe	cts in the international app	lication		
Box No. VIII Certain obse	rvations on the internation	al application	•	
2. FURTHER ACTION		-		
If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1 bis(b) that written opinions of this International Searching Authority will not be so considered.				
If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.				
For further options, see Form PCT/ISA/220.				
3. For further details, see notes to Form F	PCT/ISA/220.			
Name and mailing address of the ISA/JP		Authorized officer		
Facsimile No.		Telephone No.	· ·	

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/JP2004/003934

Во	x No. I	Basis of this opinion
1.		regard to the language, this opinion has been established on the basis of the international application in the language in which it was unless otherwise indicated under this item.
		This opinion has been established on the basis of a translation from the original language into the following language
	_	, which is the language of a translation furnished for the purposes of international search (under Rule 12.3 and 23.1(b)).
2.	With	regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed
		ition, this opinion has been established on the basis of:
	a.	type of material
	ļ	a sequence listing
	į	table(s) related to the sequence listing
	ь.	format of material
	l	in written format
	Į	in computer readable form
	c.	time of filing/furnishing
	l I	contained in the international application as filed.
	į r	filed together with the international application in computer readable form.
	Ł	furnished subsequently to this Authority for the purposes of search.
3.		In addition, in the case that more than one version or copy of a sequence listing and/or table(s) relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4.	Additi	onal comments:
		•
		·
		·
		<u></u>

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/JP2004/003934

Box			ale 43 bis. 1(a)(i) with regard to novelty, inventive step or industrial applicability; pporting such statement	
1.	Statement			
	Novelty (N)	Claims	2, 4, 6-12, 14, 16, 18-21	YES
		Claims	1, 3, 5, 13, 15, 17	NO
	Inventive step (IS)	Claims	4, 10, 16	YES
		Claims	1-3, 5-9, 11-15, 17-21	NO
	Industrial applicability (1A)	Claims	1-21	YES
		Claims		NO

2. Citations and explanations:

Document 1: JP, 5-80028, A (Shipley Co., Inc.)
March 30, 1993 (03.30.93), Claims, Paragraphs 0005, 0015, 0016 and 0027-0031
Document 2: WO, 01/029548, A1 (Advanced Technology Materials, Inc.)
April 26, 2001 (04.26.01), Page 2, line 11 to page 3, line 9, and page 21, lines 12-17, Fig. 1
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